essary to relate. In the first-mentioned district an advance has, however, been made and new methods of operating the alluvial mines there have been inaugurated. Two new companies have been formed—one called the Gilbert-Beauce Mining Company, whose object is to re-open and work the gold mines of the Gilbert River Valley; another, known as the Central Quebec Gold Fields Company, to explore the gravels of Riviere du Loup Valley. To carry on the work more advantageously in the Gilbert Valley, a scheme of draining the mines by an open cut or trench has been adopted, the slope of the valley being sufficient to allow this to be done, an opening of twenty or thirty feet in depth affording an outlet to the drainage of that portion of the old pre-glacial channel above lot 15, DeLery. At the time of my last visit (November 4) this open cut or trench had been carried up stream to a point where it was from sixteen to eighteen feet below the surface and tunnelling was in progress. The bottom of the pre-glacial river-channel, it was expected, would be reached at a depth of twenty feet, when sluicing for gold would commence. If this scheme is successful the whole of the Gilbert Rivey Valley above the point mentioned can be drained into this trench by gravitation.

"On Marie Creek, a branch of Mill River, Mr Coupal has been washing for gold during the whole season, and is reported to have been meeting with fair success.

"The Central Quebec Gold Fields Company, organized to work the auriferous gravels of Rivierre du Loup, with Mr. Louis Gendreau, of Jersey Mills, as manager, has sunk several shafts some two or three miles above the mouth of the river to a depth of sixty feet, reaching the pre-glacial gravels. Water came in so rapidly, however, that work had to be suspended until pumps were put down. Mr. Gendreau informs me that he found gold in the gravels near these shafts, and nuggets of an ounce weight or more.

Methods of Dealings with the Water.

If the quantity met with does not exceed ten 200 gall. bowks per hour, and there is only one winding rope in the pit, it will probably be best to wind the water with the sinking engine.

Should the quantity met with exceed this, it will be more economical in such a case to sling a small high pressure pump, with a cast-steel snore, protected by 3 in. deal lagging secured with iron clam, the steam, exhaust, and delivery pipes all being coupled to the hanging ropes (which will probably be old winding ropes) by iron stretchers and staples every 9 feet or so. The snore-piece will be telescopic, and capable of being drawn out 6 feet to 9 feet, and the steam pipes should be arranged with a stuffing box at the pit top to allow them to slide freely.

These ropes will be raised and lowered by the common crab engine, the two drums being held by a ratchet and dog when put out of gear. If the steam cylinder be of a type that has no dead points, it can be driven by a lad from the surface simply by regulating the stop valve, and also lubricated. This is both economical in heavily watered shafts where several pumps are at work, and also a great safeguard. The sinkers in this case signal to increase or decrease the speed of the pump.

Should it not be advisable to tub this feeder back, it will after a time be necessary to add a second pump below this, suspended by a similar pair of ropes, on other drums, and similarly arranged.

The upper pump will then either be fixed on a platform in the shaft side, or, if the ground be so heavy that this is not feasible, hung on two ropes attached to balks at the surface. The lower pumps will deliver into a cistern fixed in the shaft side, from which the upper pumps will draw, or, should permanent pumps be afterwards required, it may be possible to put in and utilise a permanent water-hold.